

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A dielectric-layer-provided copper foil, suitable for forming a capacitor layer, the foil having a dielectric layer formed on one side thereof, wherein:

said dielectric layer is an inorganic-oxide sputter film formed on one side of the copper foil by a sputtering vapor deposition method,

wherein the inorganic-oxide sputter film has a thickness of 1.0 μm or less and has pit-like defective portions disposed therein,

and wherein at least the pit-like defective portions are sealed by a polyimide resin
and

wherein the inorganic-oxide sputter film is formed from at least one of the group consisting of aluminum oxide, tantalum oxide, barium titanate and combinations thereof.

2. Cancelled.

3. (Previously Presented) The dielectric-layer-provided copper foil for forming a capacitor layer according to claim 1, wherein:

the polyimide resin contains a dielectric filler.

4. (Previously Presented) The dielectric-layer-provided copper foil of claim 1, wherein:

a binder metal layer is interposed between the copper foil layer and the dielectric layer.

5. (Previously Presented) The dielectric-layer-provided copper foil of claim 4, wherein:

the binder metal layer is formed from one of the group selected from cobalt, chromium, nickel, nickel-chromium alloy, zirconium, palladium, molybdenum, tungsten, titanium, aluminum, platinum, and an alloy of one of these metals.

6. (Previously Presented) The dielectric-layer-provided copper foil of claim 1, wherein:

a high-melting-point metal layer is interposed between the copper foil layer and the dielectric layer.

7. (Previously Presented) The dielectric-layer-provided copper foil of claim 6, wherein:

the high-melting-point metal layer is formed from one of the group selected from nickel, chromium, molybdenum, platinum, titanium, tungsten, and an alloy of one of these metals.

8. (Currently Amended) The dielectric-layer-provided copper foil of claim 6, wherein:
a the high-melting-point metal layer and a the binder metal layer are formed between a the copper foil layer and a the dielectric layer.

9. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 1 as a lower electrode forming layer, wherein:

an upper electrode forming layer is formed on the dielectric layer to provide a three-layer configuration consisting essentially of a lower electrode forming layer, a dielectric layer, and an upper electrode forming layer.

10. (Previously Presented) The copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 1 as a lower electrode forming layer, wherein:

a binder metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a four-layer configuration consisting essentially of a lower electrode forming layer, a dielectric layer, a binder metal layer, and an upper electrode forming layer.

11. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 1 as a lower electrode forming layer, wherein:

a high-melting-point metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a four-layer configuration consisting essentially of a lower electrode forming layer, a dielectric layer, a high-melting-point metal layer, and an upper electrode forming layer.

12. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 1 as a lower electrode forming layer, wherein:

a high-melting-point metal layer, a binder metal layer, and an upper electrode forming layer are formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a dielectric layer, a binder metal layer, a high-melting-point metal layer, and an upper electrode forming layer.

13. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 4 as a lower electrode forming layer, wherein:

an upper electrode forming layer is formed on the dielectric layer to provide a four-layer configuration consisting essentially of a lower electrode forming layer, a binder metal layer, a dielectric layer, and an upper electrode forming layer.

14. (Currently Amended) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 4 as a lower electrode forming layer, wherein:

a the binder metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a binder metal layer, a dielectric layer, a binder metal layer, and an upper electrode forming layer.

15. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 4 as a lower electrode forming layer, wherein:

a high-melting-point metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a binder metal layer, a dielectric layer, a high-melting-point metal layer, and an upper electrode forming layer.

16. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 4 as a lower electrode forming layer, wherein:

a high-melting-point metal layer, a binder metal layer, and an upper electrode forming layer are formed on the dielectric layer to provide a six-layer configuration consisting essentially of a lower electrode forming layer, a binder metal layer, a

dielectric layer, a binder metal layer, a high-melting-point metal layer, and an upper electrode forming layer.

17. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 6 as a lower electrode forming layer, wherein:

an upper electrode forming layer is formed on the dielectric layer to provide a four-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a dielectric layer, and an upper electrode forming layer.

18. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 6 as a lower electrode forming layer, wherein:

a binder metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a dielectric layer, a binder metal layer, and an upper electrode forming layer.

19. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 6 as a lower electrode forming layer, wherein:

a high-melting-point metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a dielectric layer, a high-melting-point metal layer, and an upper electrode forming layer.

20. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 6 as a lower electrode forming layer, wherein:

a high-melting-point metal layer, a binder metal layer, and an upper electrode forming layer are formed on the dielectric layer to provide a six-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a dielectric layer, a binder metal layer, a high-melting-point metal layer, and an upper electrode forming layer.

21. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 8 as a lower electrode forming layer, wherein:

an upper electrode forming layer is formed on the dielectric layer to provide a five-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a binder metal layer, a dielectric layer, and an upper electrode forming layer.

22. (Previously Presented) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 8 as a lower electrode forming layer, wherein:

a binder metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a six-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a binder metal layer, a dielectric layer, a binder metal layer, and an upper electrode forming layer.

23. (Currently Amended) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 8 as a lower electrode forming layer, wherein:

a the high-melting-point metal layer and an upper electrode forming layer are formed on the dielectric layer to provide a six-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer, a binder metal layer, a dielectric layer, a high-melting-point metal layer, and an upper electrode forming layer.

24. (Currently Amended) A copper clad laminate for forming a capacitor layer, using the copper foil layer of the dielectric-layer-provided copper foil of claim 8 as a lower electrode forming layer, wherein:

a the high-melting-point metal layer, a binder metal layer, and an upper electrode forming layer are formed on the dielectric layer to provide a seven-layer configuration consisting essentially of a lower electrode forming layer, a high-melting-point metal layer,

a binder metal layer, a dielectric layer, a binder metal layer, a high-melting-point metal layer, and an upper electrode forming layer.

25. (Currently Amended) A copper clad laminate for forming a capacitor layer using the dielectric-layer-provided copper foil of claim 9, wherein:

an the upper electrode forming layer uses a member selected from the group consisting essentially of copper, aluminum, silver, and gold.

26. (Currently Amended) A method for manufacturing the dielectric-layer-provided copper foil of claim 1, said method comprising:

forming an the inorganic-oxide sputter film having a thickness of 1.0 μm or less on one side of the copper foil by using a sputtering vapor deposition method, and

embedding and sealing at least a pit-like defective portion generated on the inorganic-oxide sputter film with a polyimide resin by a polyimide-resin electrodeposition method.

27. (Currently Amended) A method for manufacturing a dielectric-layer-provided copper foil of claim 4, said method comprising:

forming a the binder metal layer on the one side of a copper foil,

forming an the inorganic-oxide sputter film having a thickness of 1.0 μm or less on the binder metal layer by using a sputtering vapor deposition method, and

embedding and sealing at least a pit-like defective portion generated on the inorganic-oxide sputter film with a polyimide resin by a polyimide-resin electrodeposition method.

28. (Currently Amended) A method for manufacturing a dielectric-layer-provided copper foil according to claim 6, said method comprising:

forming a the high-melting-point metal layer on the one side of a copper foil,

forming ~~an~~ the inorganic-oxide sputter film having a thickness of 1.0 μm or less on the high-melting-point metal layer by using a sputtering vapor deposition method, and

embedding and sealing at least a pit-like defective portion generated on the inorganic-oxide sputter film with a polyimide resin by a polyimide-resin electrodeposition method.

29. (Currently Amended) A method for manufacturing a dielectric-layer-provided copper foil according to claim 8, said method comprising:

forming a the high-melting-point metal layer on the one side of a copper foil,

forming a the binder metal layer on the high-melting-point metal layer,

forming ~~an~~ the inorganic-oxide sputter film having a thickness of 1.0 μm or less on the binder metal layer by using a sputtering vapor deposition method, and

embedding and sealing at least a pit-like defective portion generated on the inorganic-oxide sputter film with a polyimide resin by a polyimide-resin electrodeposition method.

30. (Previously Presented) A method for manufacturing a dielectric-layer-provided copper foil according to claim 27, said method further comprising:

using a polyimide-resin electrodeposition method wherein an electrodeposition solution contains a dielectric-filler containing polyimide, and

wherein a dielectric powder having a substantially-spherical perovskite structure in which an average particle diameter D_{IA} ranges between 0.05 and 1.0 μm , an accumulated particle diameter D_{50} according to the laser-diffraction-scattering particle-size-distribution measuring method ranges between 0.1 and 2.0 μm , and the value of coherence degree shown as D_{50}/D_{IA} by using the accumulated particle diameter D_{50} and the average particle diameter D_{IA} obtained from an image analysis is 4.5 or less is used for the dielectric fillers.

31. (Currently Amended) A method for manufacturing a dielectric-layer-provided copper foil according to claim 30, wherein:

~~the content~~ an amount of dielectric fillers in a dielectric-filler-containing polyimide electrodeposited solution ranges between 75 and 90 wt%.